

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA)	Criminal No. 1:19-cr-10195-WGY
)	
v.	)	Violations:
)	
(1) HAOYANG YU,	)	<u>Counts One – Twelve</u> : Possession of Stolen
a/k/a JACK YU,	)	Trade Secrets
a/k/a HARRY YU,	)	(18 U.S.C. §§ 1832 (a)(3) & (a)(4))
a/k/a JACK TRICON,)	
	)	<u>Counts Thirteen – Seventeen</u> : Wire Fraud;
(2) TRICON MMIC, LLC, and	)	Aiding and Abetting
	)	(18 U.S.C. §§ 1343 & 2)
(3) YANZHI CHEN,)	
	)	<u>Counts Eighteen & Nineteen</u> : Illegal Exports
Defendants.	)	of Controlled Technology to Taiwan
	)	(50 U.S.C. § 1705)
)	
	)	<u>Count Twenty</u> : Fraud and Misuse of Visas,
	)	Permits, and Other Documents
	)	(18 U.S.C. § 1546)
)	
	)	<u>Count Twenty-One</u> : Procurement of
	)	Citizenship or Naturalization Unlawfully
	)	(18 U.S.C. § 1425(a))
)	
	)	<u>Trade Secret Forfeiture Allegation</u> :
	)	(18 U.S.C. §§ 981(a)(1)(C) & 2323 and
	)	28 U.S.C. § 2461(c))
)	
	)	<u>Wire Fraud Forfeiture Allegation</u> :
	)	(18 U.S.C. § 981(a)(1)(C) and
	)	28 U.S.C. § 2461(c))
)	
	)	<u>Illegal Export Forfeiture Allegation</u> :
	)	(19 U.S.C. § 1595a(d) and
	)	28 U.S.C. § 2461(c))
)	

THIRD SUPERSEDING INDICTMENT

General Allegations

1. HAOYANG YU (“YU”), a/k/a JACK YU, a/k/a HARRY YU, a/k/a JACK TRICON, was born in Harbin, China, and first entered the United States in 2002 through the student visa program. In or about June 2009, YU obtained status as a lawful permanent resident. On or about March 8, 2017, YU became a naturalized U.S. citizen.

2. YU is legally married to his wife, YANZI CHEN (“CHEN”). Since in or about 2013, they have resided in Lexington, Massachusetts.

3. In or about 2017, YU and CHEN established and began operating a company called TRICON MMIC, LLC (“TRICON”). The business designed and sold microchips until in or about 2019.

YU’s Employment at Analog Devices, Inc.

4. On or about July 22, 2014, Analog Devices, Inc. (“ADI”) paid about \$2 billion to acquire Hittite Microwave Corporation (“HMC”) and its intellectual property, including its microchip designs. YU was an HMC employee at the time of this purchase. By virtue of the merger, YU began working at ADI as a principal microchip design engineer. YU resigned from ADI on or about July 31, 2017.

5. ADI is a worldwide semiconductor company headquartered in Norwood, Massachusetts. It manufactures high-performance microchips used in electronic equipment. ADI has more than 100,000 customers and sells its data converters, amplifiers, linear products, radio frequency integrated circuits, monolithic microwave integrated circuits (“MMICs”), sensors, power management products, and processing products in interstate and foreign commerce throughout the United States and the world.

6. While employed at ADI, YU’s responsibilities included the design and development of MMICs. MMICs are a type of microchip that operate at microwave frequencies

and perform functions such as power amplification, low-noise amplification, and high-frequency switching. They are used in radio, cellular, and satellite communications and in defense and aerospace applications. As a result of his position at ADI, YU had access to data and information relating to past, present, and future HMC and ADI MMIC designs, including product schematics, modeling files, design layouts, manufacturing files, export control specifications, performance data, and testing procedures.

7. To maintain a high level of innovation in its products, including its MMIC lines, ADI has invested billions of dollars in research and development. To remain competitive in a global market, ADI also has also invested significant time and resources in designing, developing, and testing its products. ADI considers information and data regarding the development and design of ADI products its most important intellectual property. Among other things, ADI considers its schematics, modeling files, design layouts, and manufacturing files to be trade secrets and takes steps to protect this confidential and proprietary information.

ADI's Protection of Trade Secrets and Other Property

8. During the relevant time, ADI used a number of reasonable measures to protect its confidential and proprietary information, including its trade secrets. These measures included but were not limited to:

- a. Restricting physical access and requiring company-issued badges to access company facilities worldwide;
- b. Restricting access to ADI computer systems by controlling the devices that could connect to the ADI network, using network security mechanisms and firewalls to protect the information on the network from being exfiltrated, limiting the programs that could be installed on company devices, requiring a user name and strong password to access the corporate network, restricting

- access to files containing proprietary and confidential information about the design and manufacture of ADI parts to employees with a need to know; and
- c. Requiring any non-employee, including vendors and customers, to sign a non-disclosure agreement before ADI would share any confidential information.

9. Consistent with its security policies, ADI required YU to sign a confidentiality agreement at the beginning of his ADI employment on or about July 24, 2014. In that document, YU agreed that he would not – either during his ADI employment or after it – disclose any ADI confidential information or use any ADI confidential information for his own purposes or for the benefit of anyone else. YU also agreed to return all confidential information and copies of confidential information in his possession to ADI immediately upon termination of his employment. YU had previously signed a similar confidentiality agreement with HMC.

10. Additionally, ADI required YU to attend various trainings, including those on data protection and export control. YU was also required to complete ADI's Code of Business Conduct and Ethics training in 2016. That course specifically discussed conflicts of interest and the importance of protecting ADI's confidential information from public dissemination. In signing its certification, YU affirmed that he was in compliance with ADI's Code of Business Conduct and Ethics. YU also affirmed that he would "report future violations or potential violations of the Code of Business Conduct and Ethics by myself or others as soon as I become aware of such violations or potential violations." Moreover, ADI required YU to complete analogous Business Code of Conduct and Ethics trainings in 2015 and 2017 and to certify upon completion of those courses that he had read, understood, and agreed to comply with the provisions and policies referenced in the courses. The trainings included instruction that YU follow laws, regulations, and company policies.

11. On July 31, 2017, YU resigned from ADI. As required, he attended an exit interview during which he received a “Proprietary Rights Statement,” which reminded him of his obligation to protect ADI’s confidential and proprietary information even after his departure from the company. YU signed that statement, affirming that he had surrendered to ADI any copies of ADI’s proprietary information, including customer information and all technical materials relating to present and future product designs, such as schematics, layouts, and test procedures. His signature also affirmed that he understood none of this information could be disclosed or used by him or by others.

YU’s Possession of Stolen ADI Trade Secrets and the Defendants’ Scheme to Defraud ADI

12. Unbeknownst to ADI, the defendants devised and executed a scheme to defraud ADI of its confidential proprietary information – including, but not limited to, the trade secrets contained in thousands of ADI’s schematic, modeling, design layout, and manufacturing files, as well as ADI’s customer information – and to enrich themselves with this property. The defendants’ overarching scheme to defraud had several components:

- a. YU falsely assured ADI that he would comply – and, in fact, had complied – with his agreements not to use ADI’s trade secrets and other confidential information for his own purposes.
- b. Meanwhile, YU knowingly and willingly stole and then possessed ADI’s trade secrets and other proprietary information with the intent to harm ADI and to use the information for the defendants’ own gain.
- c. The defendants employed the information to cause the manufacture of MMICs.
- d. And the defendants marketed and sold those MMICs, including to ADI’s customers, with the intent to enrich themselves and to deprive ADI of future profits.

13. Beginning no later than September 2016, YU began stealing ADI's confidential information by downloading files from ADI's servers. This conduct continued for several months. Ultimately, YU stored these stolen files in his personal computers and in his personal Google Drive account. Personal electronic devices seized from YU's home in June 2019 contained more than 2,000 unique files that were ADI property. These files had the same hash values as ADI's files. In other words, these files matched – bit-for-bit – those developed, owned, and still maintained by ADI. In addition, YU's electronic devices held thousands more files that did not have matching hash values but nevertheless contained ADI property, including scores of microchip schematics and design layouts. Finally, in December 2018, YU's Google Drive account contained spreadsheets into which YU had copied and stored confidential ADI information and trade secrets.

14. For example, YU stole and then possessed the design layout for the HMC994A. This product is a wideband frequency amplifier used in aerospace and defense applications, fiber optics, satellite communications, and instrumentation. A design layout is a complete blueprint of the physical microchip. It consists of a layout database – holding numerous files that specify the location, structure, dimensions, and other characteristics of the microchip's components – and information provided by the foundry that will ultimately construct the chip. When the chip is ready for construction, the design layout data are electronically converted into another file format – known as a manufacturing, or GDS, file – and sent to the foundry, whose computers use that data to build the physical chip. Because a design layout contains the information needed to manufacture a microchip, ADI's design layouts are among its most sensitive and valuable trade secrets. The design layout files associated with HMC994A are alone worth millions of dollars, considering the product's research and development costs and yearly profits. In addition to the stealing the design layout for the HMC994A, YU stole design layouts for dozens of other chips.

15. In or about early 2017, YU was still an ADI employee. Nevertheless, as part of the scheme to defraud, YU and CHEN established and began operating TRICON. In or about January 2017, YU registered the TRICON website, www.triconmmic.com, which said that the company “specialize[d] in wide band MMIC amplifiers” and served customers in “defense and aerospace, test and instrumentation, satellite communications.” Also in or about January 2017, YU sent an electronic message to a leading semiconductor fabricator located in Taiwan (the “Taiwanese Foundry”). The message asked whether TRICON, “a small MMIC design house” in the United States, could use the foundry. YU signed the message with the pseudonym “Jack.” YU also began soliciting prospective customers. For example, on or about January 5, 2017, YU exchanged LinkedIn messages with an employee of Company A, a California-based developer and manufacturer of telecommunications infrastructure. In one of the messages, YU said that he was a semiconductor professional “in the process of starting my own business.” YU said that TRICON had “a broad portfolio of designs that are ready to be fabricated,” that he could “offer more attractive prices than some larger companies,” and that he thought he “might be able to serve your system needs.” YU signed the message with the pseudonym “Jack Yu.”

16. On or about March 15, 2017, CHEN organized TRICON as a Massachusetts limited liability company. CHEN described the business as “integrated circuit design and service” on the Certificate of Organization. She listed TRICON’s principal business address as “1337 Massachusetts Avenue #109, Arlington, Massachusetts 02476” on the Certificate of Organization and on the 2018 and 2019 Annual Reports that she filed with the Secretary of Commonwealth, Corporations Division. The Massachusetts Avenue address belongs to a United Parcel Service store in Arlington, Massachusetts, where TRICON was assigned mailbox number 109.

17. In furtherance of the scheme to defraud, the defendants established an account with the Taiwanese Foundry. To do so, the defendants completed a customer information form listing

CHEN as TRICON's president, major shareholder, and point of contact for all billing, shipping, payment, sales, and technology-related inquiries. The form listed CHEN's email address as info@triconmmic.com. In a section titled "Business Advantage," the form described TRICON as a small company whose innovations, flexibility, and lack of overhead allowed it to offer competitive prices. "More specifically, our IP gives us a leg up against our competitors in terms of some key parameters for microwave amplifiers," it said. On or about March 21, 2017, YU emailed this form and TRICON's Massachusetts Certificate of Organization to the Taiwanese Foundry. In his email, YU wrote that he was also copying "my partner who is the legal signatory of our LLC." The email he copied was info@triconmmic.com. YU's email went on to acknowledge that TRICON was a new company whose business advantages were "our innovative technology and design."

18. On or about June 1, 2017, while still employed at ADI, YU submitted stolen ADI files to the Taiwanese Foundry so that it would manufacture certain TRICON parts. YU attached the stolen information to an email, which asked the foundry to "treat [the information] as proprietary data." Over the next few days, the Taiwanese Foundry asked YU to make a few adjustments and to resubmit via an FTP server. On or about June 3, 2017, YU emailed the Taiwanese Foundry stating, "I've uploaded the new GDS with all the fixes." A Taiwanese Foundry employee confirmed receipt of a file named "TM50_TOP_v2.gds." The foundry's internal records show that the file was received on or about June 6, 2017. It contained manufacturing data for about 13 microchips based on stolen ADI designs.

19. On or about June 6, 2017, CHEN signed a purchase order for the Taiwanese Foundry in the amount of \$39,960. Three days later, on or about June 9, 2017, CHEN authorized an international wire for \$39,960 from TRICON's United States bank account to the Taiwanese

Foundry's bank account in Taipei, Taiwan. Unwittingly using ADI's stolen trade secret information, the Taiwanese Foundry then began manufacturing TRICON's parts

20. The defendants furthered the scheme to defraud in July 2018, when they paid the Taiwanese Foundry to manufacture a second set of TRICON parts. This time, on or about July 20, 2018, YU emailed the foundry and said, "We will submit the GDS file in a day or so." Taiwanese Foundry records show that a design file named "TC2_TOP" arrived on or about July 23, 2018. Again, the file contained manufacturing data for about 13 microchips based on stolen ADI designs.

21. On or about July 19, 2018, TRICON issued a purchase order to the Taiwanese Foundry in the amount of \$36,900. On or about July 25, 2018, CHEN authorized an international wire for \$36,900 from TRICON's United States bank account to the Taiwanese Foundry's bank account in Taipei, Taiwan. A signature with CHEN's name appeared on the wire instructions. Again unwittingly using ADI's stolen trade secret information, the Taiwanese Foundry began manufacturing a new set of TRICON parts.

22. Between in or about March 2017 and in or about June 2019, YU and CHEN operated TRICON and used its website to market approximately 20 ADI and HMC designs as their own. TRICON's website also targeted ADI customers. For example, the May 28, 2019, version of the website included the chart below, which listed various ADI microchips and substituting TRICON parts. The performance specifications of most TRICON parts were identical or virtually identical to those sold by ADI. The website also falsely claimed that ADI "[had] hit many customers by sudden announcements of obsolete parts" and, thus, that TRICON could better serve them.

Part Number	Description	ADI (Hittite)	Broadcom (Avago)	Data Sheet
TM5051	DC - 52 GHz Driver Amp	HMC1022 with more bandwidth	AMMC-5024 with more bandwidth	pdf
TM5052	2 - 52 GHz Driver Amp	HMC1022 with more bandwidth		pdf
TM5020	DC - 20 GHz Driver Amp	HMC465 with improved NF		pdf
TM5021	2 - 20 GHz LNA	HMC462 with improved NF	AMMC-5020 with improved NF	pdf
TM5024	DC - 20 GHz LNA	HMC460 with improved NF		pdf
TM5029	2 - 20 GHz Driver Amp	HMC464 with improved NF		pdf
TM5010	DC - 20 GHz Driver Amp	HMC465		pdf
TM5011	2 - 20 GHz LNA	HMC462		pdf
TM5014	DC - 20 GHz LNA	HMC460		pdf
TM5019	2 - 20 GHz Driver Amp	HMC464		pdf
TM5030	2 - 30 GHz LNA		AMMC-5026 with improved NF	pdf
TM5054	DC - 30 GHz PA	HMC994		pdf
TM5057	DC - 22 GHz PA	HMC797		pdf
TM5058	0.1 - 22 GHz PA	HMC998		pdf
TM5059	0.1 - 22 GHz PA	HMC907		pdf
TM7040	18 - 45 GHz Driver Amp	HMC-ALH445 with higher power	AMMC-6345	coming soon
TM7070	35 - 70 GHz Driver Amp	HMC1144		coming soon
TM7090	50 - 95 GHz Driver Amp	ADL7003		coming soon
TM7080	71 - 86 GHz E-band LNA	HMC8325		coming soon
TM7071	71 - 76 GHz PA	w/ 25dBm P1dB		coming soon
TM7081	81 - 86 GHz PA	w/ 25dBm P1dB		coming soon

23. The defendants intended to and did convert ADI's stolen trade secret and other proprietary information for their own economic benefit. They did so by using that information to manufacture, market, and sell TRICON products to customers in the United States and abroad.

24. As just one example, YU stole ADI's design layout and other information relating to an amplifier known as the HMC462. The defendants then used this information to manufacture

two TRICON parts – the TM5011 and the TM5021, which they advertised as substitutes for or competitors with the HMC462. On or about February 26, 2018, YU sent an email from info@triconmmic.com to the president of Company B, a California-based power amplifier specialist and potential buyer of these chips. “We are a MMIC supplier who provides power amplifiers,” YU wrote. “Attached is our product catalog. You can also visit our website at <http://www.triconmmic.com/Products> for the product list and datasheets. Please let me know if you are still interested in evaluating our products.” He signed the email “Jack Yu” and sent a similar message from his LinkedIn account, which at various times used the pseudonyms “Jack Yu” and “Jack Tricon.” Company B, which also purchased the HMC462 directly from ADI, ultimately purchased TRICON’s substitutes for this part and others.

25. Company B was not the only one interested in TRICON’s substitute for the HMC462. In an email dated in or about April 2018, a Turkish company substantially owned and controlled by the Turkish Armed Forces Foundation contacted YU at his TRICON email address and asked him to provide price quotes for three TRICON parts, including the TM5021. A representative of the Turkish company told YU that the parts would be used in electronic warfare systems. At YU’s request, the representative also estimated that the defense company could purchase about 3,750 parts in the next three years and potentially more if it used the parts in other projects. On or about April 13, 2018, YU – recognizing the “big potential” for future business – agreed to provide the Turkish company with three samples of his TM5021 chip. Months later, in or around December 2018, YU sold 25 copies of TRICON’s TM5024 chip to the same Turkish company. These chips were made using ADI’s design for its HMC460 part.

The Defendants’ Export of Commerce Controlled Goods

26. The files that TRICON transferred to the Taiwanese Foundry on or about July 23, 2018, contained, among other things, the technology necessary to manufacture two products – the

TM5051 and the TM5052. The U.S. Department of Commerce controls the export of this technology from the United States for national security reasons.

27. In general, except for items exclusively controlled for export and re-export by the Department of State, all items made, wholly or in part, in the United States, wherever located, are subject to the Export Administration Regulations (“EAR”), Title 15, Code of Federal Regulations, Parts 730-774. The Department of Commerce promulgates the Export Administration Regulations and maintains the Commodity Control List, which identifies the most sensitive items subject to the EAR that, depending on a number of factors, require export licenses prior to shipment outside of the United States.

28. The EAR limits the export of those goods and technology that the Secretary of Commerce deems could significantly contribute to the military potential of other countries, could prove detrimental to the national security of the United States, or are contrary to the foreign policy of the United States. For example, the EAR controls exports and re-exports of “dual-use” items, commercial items that also have a military or nuclear proliferation application. Some of these items and technology are controlled for national security reasons and designated with Export Control Classification Numbers (“ECCNs”) 3A001 and 3E001. With limited exceptions, the EAR prohibits any person from exporting or causing the export from the United States of these items and related technology to Taiwan unless an export license is first obtained from the U.S. Department of Commerce.

29. At all relevant times, the EAR defined “technology” as information necessary for “the development, production, use, operation, installation, maintenance, repair, overhaul, or refurbishing” of an item. According to the EAR, technology may be in any tangible or intangible form, such as “written or oral communications, blueprints, drawings, photographs, plans, diagrams, models, formulae tables, engineering designs and specifications, computer-aided design

files, manuals or documentation, electronic media or information revealed through visual inspection.” 15 C.F.R. § 772. The files that YU exported to the Taiwanese Foundry on or about July 23, 2018 constitute “technology” within the meaning of the EAR.

30. At all times material to the Third Superseding Indictment, the Department of Commerce required a license for the export to Taiwan of Gallium arsenide (“GaAs”) MMIC distributed amplifiers bearing TRICON part numbers TM5051 and TM5052 and the technology required for the development and production of these parts. There were no applicable license exceptions for exports of these items or their technology. YU and TRICON knew that these parts and their related technology required export licenses. The ADI part whose files YU had stolen to make the TM5051 and TM5052 was export controlled. In addition, the TRICON website advertised these parts as classified under ECCN “3A001.” Below is a portion of the relevant table as it appeared on the TRICON website on May 28, 2019:

Part Number	Frequency (GHz)	P1dB (dBm)	Psat (dBm)	Gain (dB)	OIP3 (dBm)	NF (dB)	Single Bias	VDD (V)	Icq (mA)	Data Sheet	ECCN Classification
TM5051	DC - 52	21	23	12	NT	3		8	105	pdf	3A001.b.2.d
TM5052	2 - 52	20	22	12	NT	3	Yes	10	110	pdf	3A001.b.2.d

31. No agent of TRICON, including YU or CHEN, ever applied for or obtained a license from the Department of Commerce to export GaAs MMIC distributed amplifiers bearing part numbers TM5051 and TM5052 or their related technology to Taiwan. Nevertheless, YU did export the technology required for the production and manufacture of these parts when he electronically sent the files to the Taiwanese Foundry on or about July 23, 2018, in violation of 50 U.S.C. § 1705, 15 C.F.R. §§ 736.2(b)(10), 758.1, 764.2, and Executive Order 13222.

YU’s Immigration Fraud Scheme

32. On or about March 1, 2016, YU submitted an Application for Naturalization, also known as a Form N-400, to the U.S. Department of Homeland Security. On Part 11 of the Form N-400, YU answered “no” to the question of whether he had “ever committed, assisted in

committing, or attempted to commit, a crime or offense for which ... [he] was not arrested.” In response to Question 31 of Part 11, YU answered “no” to the question of whether he had ever given any U.S. government official any information or documentation that was false or misleading. Finally, in response to Question 32 of Part 11, YU answered “no” to the question of whether he had “ever lied to any U.S. government official ... to gain immigration benefits while in the United States.” YU signed the Form N-400 and certified “under penalty of perjury” that his answers were “true and accurate.”

33. On or about February 15, 2017, YU was interviewed under oath by a U.S. Citizenship and Immigration Services adjudication officer in connection with his Application for Naturalization. During the interview, YU affirmed his answers to the questions in the Form N-400, including his answers to the questions set forth in Part 11. At the time, YU knew that his answers to Questions 22, 31, and 32 were false because he had previously and unlawfully downloaded, copied, uploaded, stolen, misappropriated, and possessed trade secrets owned by ADI. Nonetheless, YU once again signed the Form N-400 and falsely certified “under penalty of perjury under the laws of the United States” that its contents were true and correct.

34. Based on the false information that he provided in his Application for Naturalization, YU became a naturalized United States citizen on or about March 8, 2017.

COUNTS ONE THROUGH TWELVEPossession and Attempted Possession of Stolen Trade Secrets
(18 U.S.C. §§ 1832(a)(3) & (a)(4))

The Grand Jury charges:

35. The allegations contained in paragraphs 1 through 25 are hereby re-alleged and incorporated by reference as if fully set forth herein.

36. On or about the dates listed below as to each count, in the District of Massachusetts, the defendant,

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

with the intent to convert a trade secret to the economic benefit of a person other than ADI, and intending and knowing that the offense would injure ADI, did knowingly possess an ADI trade secret related to a product used in and intended for use in interstate and foreign commerce, knowing the same to have been stolen and appropriated, obtained, and converted without authorization, and did attempt to do so:

Count	Approximate Date	Description
1	June 14, 2019	The design layout and GDS file for the HMC1022A microchip
2	June 14, 2019	The design layout and GDS file for the HMC907A microchip
3	June 14, 2019	The design layout and GDS file for the HMC797A microchip
4	June 14, 2019	The design layout and GDS file for the HMC906 microchip
5	June 14, 2019	The design layout for the HMC462 microchip
6	June 14, 2019	The design layout for the HMC465 microchip
7	June 14, 2019	The design layout for the HMC8325 microchip
8	June 14, 2019	The design layout for the ADL7003 microchip
9	June 14, 2019	ADI's proprietary Angelov model

10	June 14, 2019	ADI's proprietary Nyquist stability analysis tool
11	June 14, 2019	Modeling parameters predicting the performance of transistors built on the Taiwanese Foundry's PP15-51 process
12	December 7, 2018	An excel spreadsheet titled "status.xlsx" and containing customer financial information

All in violation of Title 18, United States Code, Sections 1832(a)(3) and (a)(4).

COUNTS THIRTEEN THROUGH SEVENTEEN

Wire Fraud; Aiding and Abetting
(18 U.S.C. §§ 1343 and 2)

The Grand Jury further charges:

37. The allegations contained in paragraphs 1 through 25 are hereby re-alleged and incorporated by reference as if fully set forth herein.

38. On or about the dates listed below as to each count, in the District of Massachusetts and elsewhere, the defendants,

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

(2) TRICON MMIC, LLC, and

(3) YANZHI CHEN,

having devised and intending to devise a scheme and artifice to defraud, and for obtaining money and property, namely, ADI's confidential proprietary information and profits derived from that confidential proprietary information, by means of materially false and fraudulent pretenses, representations, promises, and omissions, did knowingly transmit and cause to be transmitted by means of wire communications in interstate and foreign commerce, writings, signs, signals, pictures, and sounds for the purpose of executing the scheme and artifice to defraud, as set forth below:

Count	Approximate Date	Description
13	January 5, 2017	Business solicitation sent via LinkedIn message to an employee of Company A
14	March 21, 2017	Email transfer of customer information form to the Taiwanese Foundry

15	June 9, 2017	Wire transfer of \$39,960 from TRICON's bank account in the United States to the Taiwanese Foundry's bank account in Taipei, Taiwan
16	February 26, 2018	Business solicitation sent via email to the president of Company B
17	July 25, 2018	Wire transfer of \$36,900 from TRICON's bank account in the United States to the Taiwanese Foundry's bank account in the Taipei, Taiwan

All in violation of Title 18, United States Code, Sections 1343 and 2.

COUNTS EIGHTEEN & NINETEEN
 Illegal Exports of Controlled Technology to Taiwan
 (50 U.S.C. § 1705)

The Grand Jury further charges:

39. The allegations contained in paragraphs 1 through 31 are hereby re-alleged and incorporated by reference as if fully set forth herein.

40. On or about the dates listed below as to each count, in the District of Massachusetts and elsewhere, the defendants

(1) HAOYANG YU,
 a/k/a JACK YU,
 a/k/a HARRY YU,
 a/k/a JACK TRICON, and

(2) TRICON MMIC, LLC,

did knowingly and willfully export and cause to be exported, from the United States to Taiwan, technology associated with TRICON part numbers TM5051 and TM5052, without having first obtained the required export licenses from the Department of Commerce:

Count	Approximate Date of Export	Description
18	July 23, 2018	Technology associated with Tricon part number TM5051
19	July 23, 2018	Technology associated with Tricon part number TM5052

All in violation of Title 50, United States Code, Section 1705, Title 15, Code of Federal Regulations, Sections 736.2(b)(1) and 764.2, and Executive Order 13222.

COUNT TWENTY

Visa Fraud
(18 U.S.C. § 1546(a))

The Grand Jury further charges:

41. The allegations contained in paragraphs 1 through 34 are hereby re-alleged and incorporated by reference as if fully set forth herein.

42. On or about February 15, 2017, in the District of Massachusetts and elsewhere, the defendant,

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

did knowingly make under oath, and did knowingly subscribe as true under penalty of perjury under 28 U.S.C § 1746, a false statement with respect to a material fact in an application and document required by the immigration laws and regulations prescribed thereunder, and did knowingly present such application and document, which contained a false statement and which failed to contain any reasonable basis in fact. Specifically, the defendant did knowingly prepare, sign and present a Form N-400, Application for Naturalization, which:

- (a) falsely stated that he had never committed a crime or offense for which he was not arrested;
- (b) falsely stated that he had never given any U.S. government official any information or documentation that was false, fraudulent, or misleading; and
- (c) falsely stated that he had never given false or misleading information to any U.S. government official while applying for any immigration benefit.

All in violation of Title 18, United States Code, Section 1546(a).

COUNT TWENTY-ONE
Procurement of Citizenship Unlawfully
(18 U.S.C. § 1425(a))

The Grand Jury further charges:

43. The allegations contained in paragraphs 1 through 34 are hereby re-alleged and incorporated by reference as if fully set forth herein.

44. On or about February 15, 2017, in the District of Massachusetts and elsewhere, the defendant,

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

knowingly procured and attempted to procure his own naturalization contrary to law by knowingly providing false and fraudulent information as to material facts in his Application for Naturalization, to wit:

- (a) falsely stating that he had never committed a crime or offense for which he was not arrested;
- (b) falsely stating that he had never given any U.S. government official any information or documentation that was false, fraudulent, or misleading; and
- (c) falsely stating that he had never given false or misleading information to any U.S. government official while applying for any immigration benefit.

All in violation of Title 18, United States Code, Section 1425(a).

POSSESSION OF STOLEN TRADE SECRETS FORFEITURE ALLEGATION
(18 U.S.C. § 981(a)(1)(C), 2323 and 28 U.S.C. § 2461)

45. Upon conviction of one or more of the offenses in violation of Title 18, United States Code, Section 1832, set forth in Counts One through Twelve, the defendant

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

shall forfeit to the United States, pursuant to Title 18, United States Code, Section 981(a)(1)(C), and Title 28, United States Code, Section 2461(c), any property, real or personal, which constitutes or is derived from proceeds traceable to the offenses, and shall forfeit to the United States, pursuant to Title 18, United States Code, Section 2323:

- a. any article, the making or trafficking of which is, prohibited under section 506 of title 17, or section 2318, 2319, 2319A, 2319B, or 2320, or chapter 90, of this Title 18;
- b. any property used, or intended to be used, in any manner or part to commit or facilitate the commission of the offense; and
- c. any property constituting or derived from any proceeds obtained directly or indirectly as a result of the commission of the offense.

46. If any of the property described in Paragraph 45, above, as being forfeitable pursuant to Title 18, United States Code, Sections 981(a)(1)(C) and 2323 and Title 28, United States Code, Section 2461(c), as a result of any act or omission of the defendant --

- a. cannot be located upon the exercise of due diligence;
- b. has been transferred or sold to, or deposited with, a third party;
- c. has been placed beyond the jurisdiction of the Court;
- d. has been substantially diminished in value; or

- e. has been commingled with other property which cannot be divided without difficulty;

it is the intention of the United States, pursuant to Title 18, United States Code, Section 2323(b)(2)(A) and Title 28, United States Code, Section 2461(c), both incorporating Title 21, United States Code, Section 853(p), to seek forfeiture of any other property of the defendant up to the value of the property described in Paragraph 44 above.

All pursuant to Title 18, United States Code, Sections 981(a)(1)(C) and 2323 and Title 28 United States Code, Section 2461(c).

WIRE FRAUD FORFEITURE ALLEGATION
(18 U.S.C. § 981(a)(1)(C) and 28 U.S.C. § 2461(c))

47. Upon conviction of one or more of the offenses in violation of Title 18, United States Code, Section 1343, set forth in Counts Thirteen through Seventeen, the defendants

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

(2) TRICON MMIC, LLC, and

(3) YANZHI CHEN,

shall forfeit to the United States, pursuant to Title 18, United States Code, Section 981(a)(1)(C), and Title 28, United States Code, Section 2461(c), any property, real or personal, which constitutes or is derived from proceeds traceable to the offenses.

48. If any of the property described in Paragraph 47, above, as being forfeitable pursuant to Title 18, United States Code, Section 981(a)(1)(C), and Title 28, United States Code, Section 2461(c), as a result of any act or omission of the defendants --

- a. cannot be located upon the exercise of due diligence;
- b. has been transferred or sold to, or deposited with, a third party;
- c. has been placed beyond the jurisdiction of the Court;
- d. has been substantially diminished in value; or
- e. has been commingled with other property which cannot be divided without difficulty;

it is the intention of the United States, pursuant to Title 28, United States Code, Section 2461(c), incorporating Title 21, United States Code, Section 853(p), to seek forfeiture of any other property of the defendants up to the value of the property described in Paragraph 46 above.

All pursuant to Title 18, United States Code, Section 981(a)(1)(C), and Title 28, United States Code, Section 2461(c).

ILLEGAL EXPORTS FORFEITURE ALLEGATION
(19 U.S.C. § 1595a(d) and 28 U.S.C. § 2461(c))

49. Upon conviction of one or more of the offenses in violation of Title 50, United States Code, Section 1705, set forth in Counts Eighteen and Nineteen, the defendants

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON, and

(2) TRICON MMIC, LLC,

shall forfeit to the United States, pursuant to Title 19, United States Code, Section 1595a(d), and Title 28, United States Code, Section 2461(c), any merchandise exported or sent from the United States or attempted to be exported or sent from the United States in violation of Title 50, United States Code, Section 1705, or the proceeds or value thereof, and property used to facilitate the exporting or sending of such merchandise, the attempted exporting or sending of such merchandise, or the receipt, purchase, transportation, concealment, or sale of such merchandise prior to exportation.


50. If any of the property described in Paragraph 49, above, as being forfeitable pursuant to Title 19, United States Code, Section 1595a(d), and Title 28, United States Code, Section 2461(c), as a result of any act or omission of the defendants --

- f. cannot be located upon the exercise of due diligence;
- g. has been transferred or sold to, or deposited with, a third party;
- h. has been placed beyond the jurisdiction of the Court;
- i. has been substantially diminished in value; or
- j. has been commingled with other property which cannot be divided without difficulty;

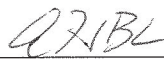
it is the intention of the United States, pursuant to Title 28, United States Code, Section 2461(c), incorporating Title 21, United States Code, Section 853(p), to seek forfeiture of any other property of the defendants up to the value of the property described in Paragraph 46 above.

All pursuant to Title 19, United States Code, Section 1595a(d), and Title 28, United States Code, Section 2461(c).

A TRUE BILL



FOREPERSON OF THE GRAND JURY



AMANDA BECK
JOHN CAPIN
JASON A. CASEY
ASSISTANT U.S. ATTORNEYS
DISTRICT OF MASSACHUSETTS

District of Massachusetts: January 26, 2022
Returned into the District Court by the Grand Jurors and filed.



DEPUTY CLERK

1/26/22 1:35pm
Date and Time